Amendments to the Claims:

The following Listing of Claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

1.(currently amended) A method of bonding orthodontic appliances to a patient's teeth comprising:

providing orthodontic appliances for at least two teeth of the patient's dental arch;

providing a quantity of photocurable material for each appliance;

placing each orthodontic appliance on a corresponding tooth of the patient's dental arch such that the photocurable material is between the appliance and the tooth;

providing a substrate and an array of solid state light emitters mounted on the substrate, wherein the emitters are arranged in locations generally corresponding to locations of orthodontic appliances on the dental arch, and wherein the substrate does not extend along all of the teeth of the arch;

placing the substrate and the array of light emitters in the oral cavity adjacent the orthodontic appliances; and

activating the light emitters in order to initiate the hardening of the photocurable material and bond the appliances to the teeth.

2. (original) A method of bonding orthodontic appliances to a patient's teeth according to claim 1 wherein the array is connected to a substrate that comprises an indirect bonding placement device.

3. (original) A method of bonding orthodontic appliances to a patient's teeth according to claim 2 wherein the placement device comprises a shell having an overall, generally "U"-shaped configuration in plan view.

4. (original) A method of bonding orthodontic appliances to a patient's teeth according to claim 2 wherein the placement device has a channel that corresponds to the shape of at least a portion of the patient's dental arch, and wherein the array is located adjacent the channel.

5. (original) A method of bonding orthodontic appliances to a patient's teeth according to claim 4 wherein the array extends along a longitudinal axis of the channel.

6. (original) A method of bonding orthodontic appliances to a patient's teeth according to claim 1 wherein the act of activating the light emitters includes the act of directing light through a light-transmissive matrix material.

7. (canceled)

8. (currently amended) A method of bonding orthodontic appliances to a patient's teeth according to claim [[~~7~~]] 1 and including the act of holding the substrate by clamping the substrate between the upper and lower teeth of the patient.

9. (currently amended) A method of bonding orthodontic appliances to a patient's teeth according to claim [[~~7~~]] 8 wherein the act of holding the substrate includes the act of directly contacting the substrate and occlusal tips of the teeth.

10. (original) A method of bonding orthodontic appliances to a patient's teeth according to claim 7 wherein the substrate is generally flat.

11. (original) A method of bonding orthodontic appliances to a patient's teeth according to claim 7 wherein the substrate has a generally U-shaped configuration in longitudinal cross section and extends along labial and lingual sides of the teeth.

12. (original) A method of bonding orthodontic appliances to a patient's teeth according to claim 1 wherein the act of placing the array of light emitters in the oral cavity includes the act of placing the array of light emitters along the occlusal sides of the appliances.

13. (original) A method of bonding orthodontic appliances to a patient's teeth according to claim 1 wherein the act of placing the array of light emitters in the oral cavity includes the act of placing the array of light emitters along the occlusal tips of the teeth.

14. (original) A method of bonding orthodontic appliances to a patient's teeth according to claim 1 wherein the array of light emitters is connected to a substrate, and wherein the substrate has a curved longitudinal axis.

15. (original) A method of bonding orthodontic appliances to a patient's teeth according to claim 14 wherein the substrate has an overall length that generally matches the length of a quadrant of the patient's dental arch.

16. (original) A method of bonding orthodontic appliances to a patient's teeth according to claim 14 wherein the array of light emitters is embedded in the substrate.

17. (original) A method of bonding orthodontic appliances to a patient's teeth according to claim 14 wherein the substrate is made of a light-transmissive material.

18. (original) A method of bonding orthodontic appliances to a patient's teeth according to claim 1 wherein the act of activating the light emitters includes the act of directing light simultaneously along a number of parallel, spaced-apart paths.

19. (original) A method of bonding orthodontic appliances to a patient's teeth according to claim 18 wherein the paths extend generally in a gingival direction.

20. (currently amended) A method of bonding orthodontic appliances to a patient's teeth according to claim 1 wherein the act of activating the light emitters includes the act of activating the light emitters for a first time interval to tack bond the appliances to the teeth and also the act of activating the light emitters for a second time interval to more fully bond the appliances to the teeth, and wherein the method includes the act of removing excess ~~adhesive~~ photocurable material during the time between the first time interval and the second time interval.

21. (original) A method of bonding orthodontic appliances to a patient's teeth according to claim 1 wherein the act of activating the light emitters includes the act of directing light through one or more teeth.

22. (original) A method of bonding orthodontic appliances to a patient's teeth according to claim 21 wherein the act of directing light through one or more teeth is carried out along a path that is generally parallel to a buccolabial-lingual reference axis.

23. (currently amended) Apparatus for bonding orthodontic appliances to a patient's teeth comprising:

an orthodontic placement device having a configuration matching at least a portion of the patient's dental arch;

at least one orthodontic appliance detachably connected to the placement device, each appliance having a base for bonding the appliance to a tooth; and

at least one solid state light emitter coupled to the placement device and arranged to direct light while inside the oral cavity toward the base of at least one appliance for hardening photocurable material located between the base and the tooth.

24. (original) Apparatus for bonding orthodontic appliances to a patient's teeth according to claim 23 wherein the placement device includes a matrix material that transmits light.

25. (original) Apparatus for bonding orthodontic appliances to a patient's teeth according to claim 23 wherein the placement device is a tray having an overall generally U-shaped configuration in longitudinal cross-section.

26. (original) Apparatus for bonding orthodontic appliances to a patient's teeth according to claim 23 and including a quantity of photocurable material disposed on each orthodontic appliance.

27. (original) Apparatus for bonding orthodontic appliances to a patient's teeth according to claim 23 wherein the placement device is a tray, and wherein the light emitters are arranged along the bottom of the tray in order to be located along occlusal tips of the teeth when the tray is placed in the oral cavity.

28. (original) Apparatus for bonding orthodontic appliances to a patient's teeth according to claim 23 wherein the apparatus includes a substrate, and wherein the light emitters are mounted on a substrate.

29. (original) Apparatus for bonding orthodontic appliances to a patient's teeth according to claim 23 and including a reflective material.

30. (original) Apparatus for bonding orthodontic appliances to a patient's teeth according to claim 29 wherein the reflective material is connected to the substrate and is located between the substrate and the light emitters.

31.(currently amended) A method of bonding orthodontic appliances to a patient's teeth comprising:

providing orthodontic appliances for at least two teeth of the patient's dental arch;

providing a quantity of photocurable material for each appliance;

placing each orthodontic appliance on a corresponding tooth of the patient's dental arch such that the photocurable material is between the appliance and the tooth;

providing a substrate and an array of solid state light emitters mounted on the substrate, wherein the emitters are arranged in at least one row that extends in a curve along the patient's dental arch adjacent the orthodontic appliances, and wherein the substrate does not extend along all of the teeth of the arch; and

activating the light emitters while inside the oral cavity in order to initiate the hardening of the photocurable material and bond the appliances to the teeth.

32.(previously presented) A method of bonding orthodontic appliances to a patient's teeth according to claim 31 wherein the act of providing an array of solid state light emitters includes the act of connecting the array to a substrate having a channel that corresponds to the shape of at least a portion of the patient's dental arch, and wherein the array is located adjacent the channel.

33.(previously presented) A method of bonding orthodontic appliances to a patient's teeth according to claim 31 wherein the act of providing an array of solid state light emitters includes the act of connecting the array to a substrate having a curved, central longitudinal axis.

34.(previously presented) A method of bonding orthodontic appliances to a patient's teeth according to claim 33 wherein the substrate is generally flat.

35.(previously presented) A method of bonding orthodontic appliances to a patient's teeth according to claim 33 wherein the substrate has an overall length that generally matches the length of a quadrant of the patient's dental arch.

36.(previously presented) A method of bonding orthodontic appliances to a patient's teeth according to claim 33 wherein the array of light emitters is embedded in the substrate.

37.(previously presented) A method of bonding orthodontic appliances to patient's teeth according to claim 31 wherein the act of placing the array of light emitters in the oral cavity includes the act of placing the array of light emitters along the occlusal tips of the teeth.

38.(previously presented) A method of bonding orthodontic appliances to patient's teeth according to claim 31 wherein the substrate has a curved longitudinal axis and includes a protrusion that extends in a direction away from the longitudinal axis in a location near the center of the substrate.

39. (previously presented) A method of bonding orthodontic appliances to patient's teeth according to claim 31 and including the act of holding the substrate by clamping the substrate between the upper and lower teeth of the patient.

40.(previously presented) A method of bonding orthodontic appliances to a patient's teeth according to claim 31 wherein the substrate is made of a light-transmissive material.

41.(previously presented) A method of bonding orthodontic appliances to a patient's teeth according to claim 31 wherein the act of activating the light emitters includes the act of directing light simultaneously along a number of parallel, spaced-apart paths.

42.(previously presented) A method of bonding orthodontic appliances to a patient's teeth according to claim 41 wherein the paths extend generally in a gingival direction.